



FLOOD STANDARDS FOR NEW GROWTH AREAS

MAJOR POLICIES & STANDARDS

FLOOD STANDARDS for NEW GROWTH AREAS

Major Policies & Standards

*This brochure highlights
some of the major flood
policies and standards for
New Growth Areas.*

BACKGROUND

In August of 2001, former Mayor Wesely appointed the Mayor's Floodplain Task Force, representing a range of stakeholders from the community, to formulate recommendations regarding the development of new floodplain standards that would address the natural functions of floodplains and reduction of future flooding hazards. In April of 2003, the Task Force finalized its recommendations. The standards, highlighted here, reflect the Task Force recommendations for New Growth Areas.

WHAT ARE NEW GROWTH AREAS?

New Growth Areas are those areas outside the Lincoln City limits, within Lincoln's zoning jurisdiction, and zoned for agriculture or rural residential on May 25, 2004 when the new standards became effective.

For more detail regarding these standards, please visit the City's website at lincoln.ne.gov. Look for the Floodplain Information link.

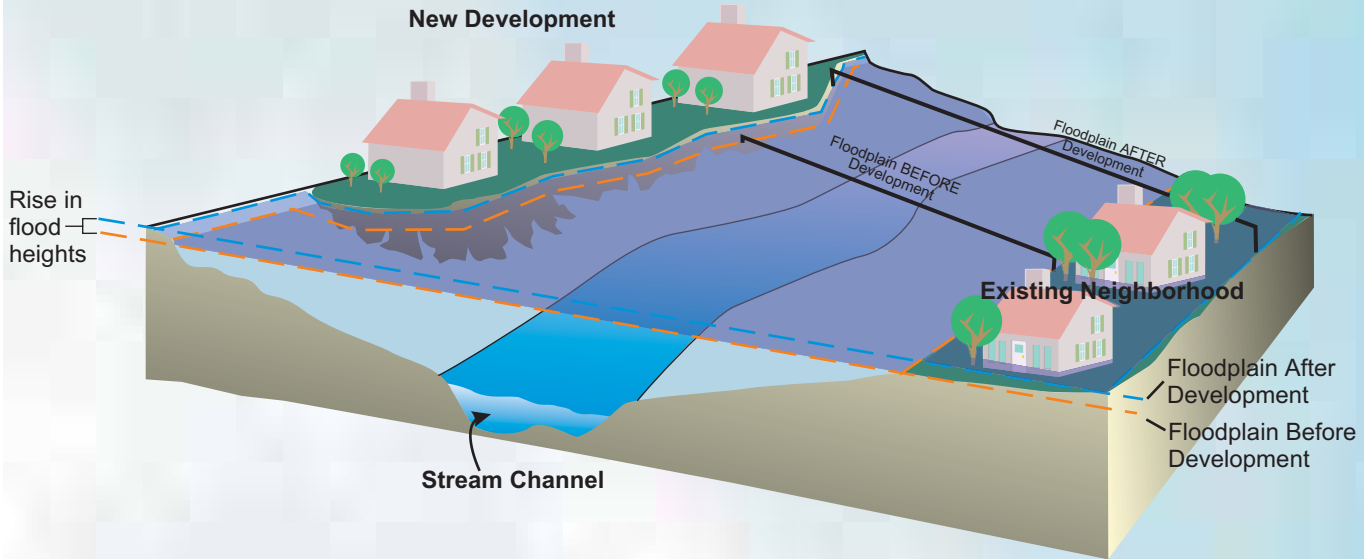
*Send questions regarding
flood standards to:*

Lincoln Public Works & Utilities Dept.
Watershed Management Division
901 N. 6th Street
Lincoln, NE 68508
441-7589
watershed@lincoln.ne.gov

NO NET RISE

Development Causing A Rise

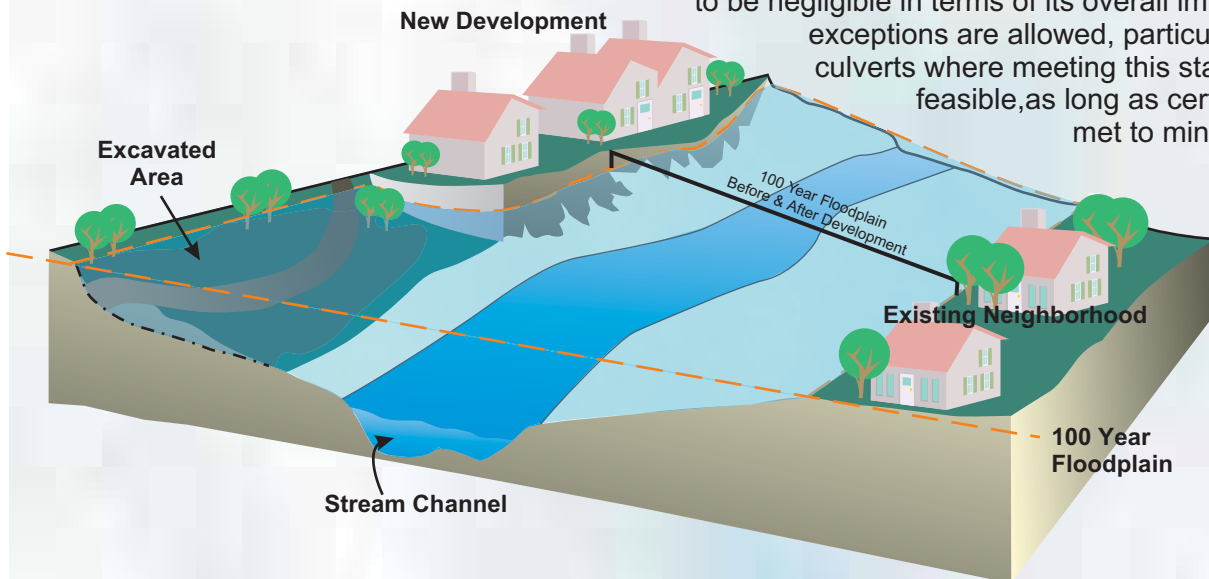
Floodplains are natural low lying areas along streams which have some important natural functions. One of the major functions of the floodplain is to convey moving flood water during large storm events when the stream spills over its banks. When development in the floodplain disrupts this flowing water, it causes a rise in flood heights, similar to what happens when a dam is placed across a creek.



Development NOT Causing A Rise

Flood standards for New Growth Areas require No Net Rise, which means that development must be designed so that it doesn't increase flood heights. A similar standard has been historically required in a narrower band called a Floodway which is designated along certain stream channels. The flood standards for New Growth Areas extend this standard to the entire floodplain to make sure that development does not increase flood heights.

For reasons of flexibility, the standard outside of the Floodway allows development to cause flood heights to increase by up to five hundredths of a foot (0.05'). However, this is considered to be negligible in terms of its overall impact. Also, limited exceptions are allowed, particularly for bridges or culverts where meeting this standard may not be feasible, as long as certain conditions are met to minimize and mitigate adverse impacts.



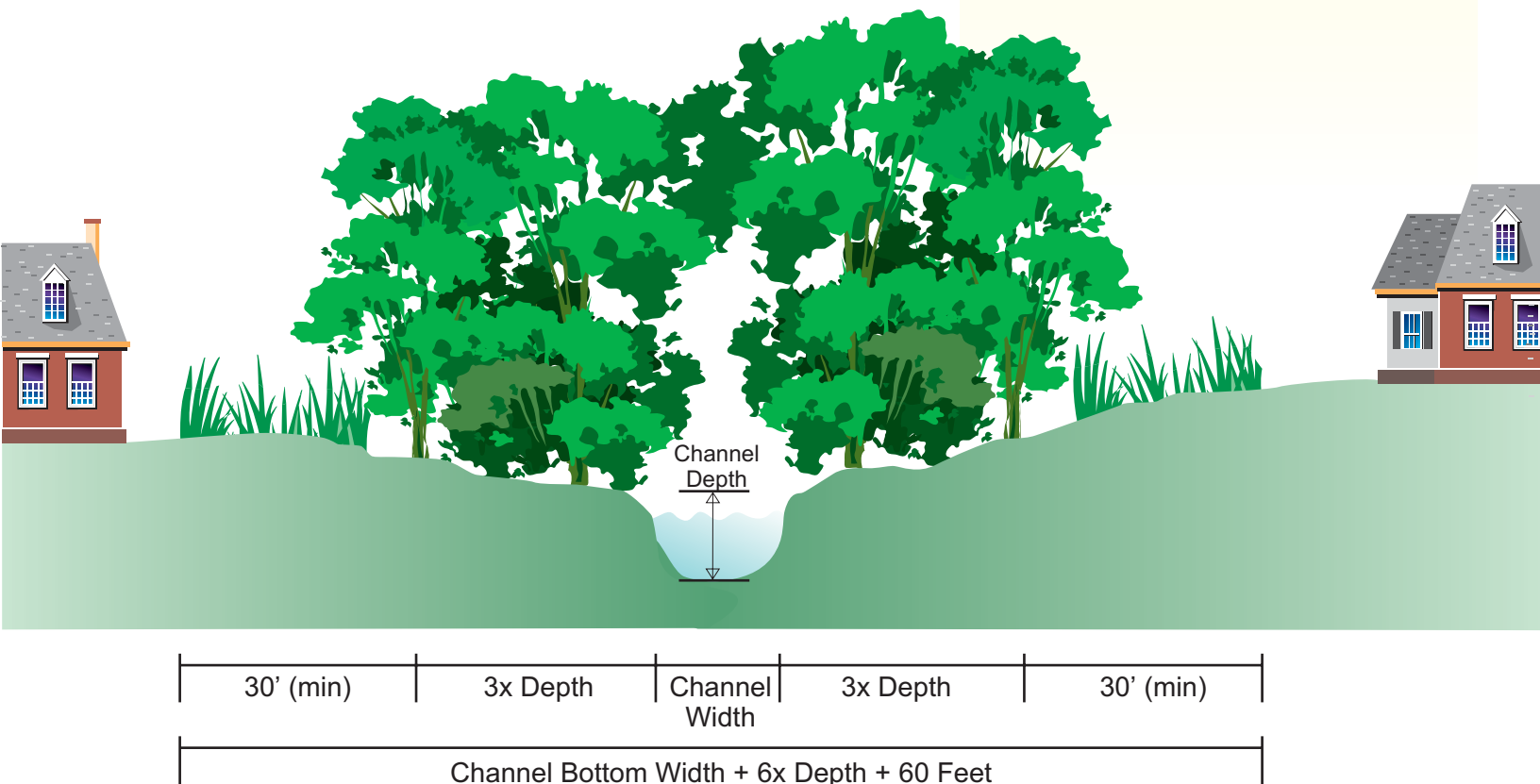
MINIMUM FLOOD CORRIDOR

Another function of the floodplain is to act as a natural sponge to absorb, slow down and filter storm water. Trees, shrubs and other natural vegetation along stream corridors buffer the creek by functioning as a protective barrier which soaks up stormwater, stabilizes stream banks, filters pollutants for clean water and protects aquatic life. Previously, Lincoln had a standard that required the preservation of a buffer called a 'Minimum Flood Corridor' along some limited stream reaches, but this standard did not apply to streams with mapped floodplains, nor to some smaller streams.

The standards for New Growth Areas extend the requirement of a 'Minimum Flood Corridor' so that it applies to streams with mapped floodplains. The buffer requirement is also extended to some smaller streams outside the floodplain not previously protected (this part of the standard also applies in the Existing Urban Area). The width of the buffer (including both sides of the creek) is the width of the bottom of the stream, plus 6 times the stream's depth, plus 60 feet. This means that the width of the Minimum Flood Corridor will vary with the size of the stream.

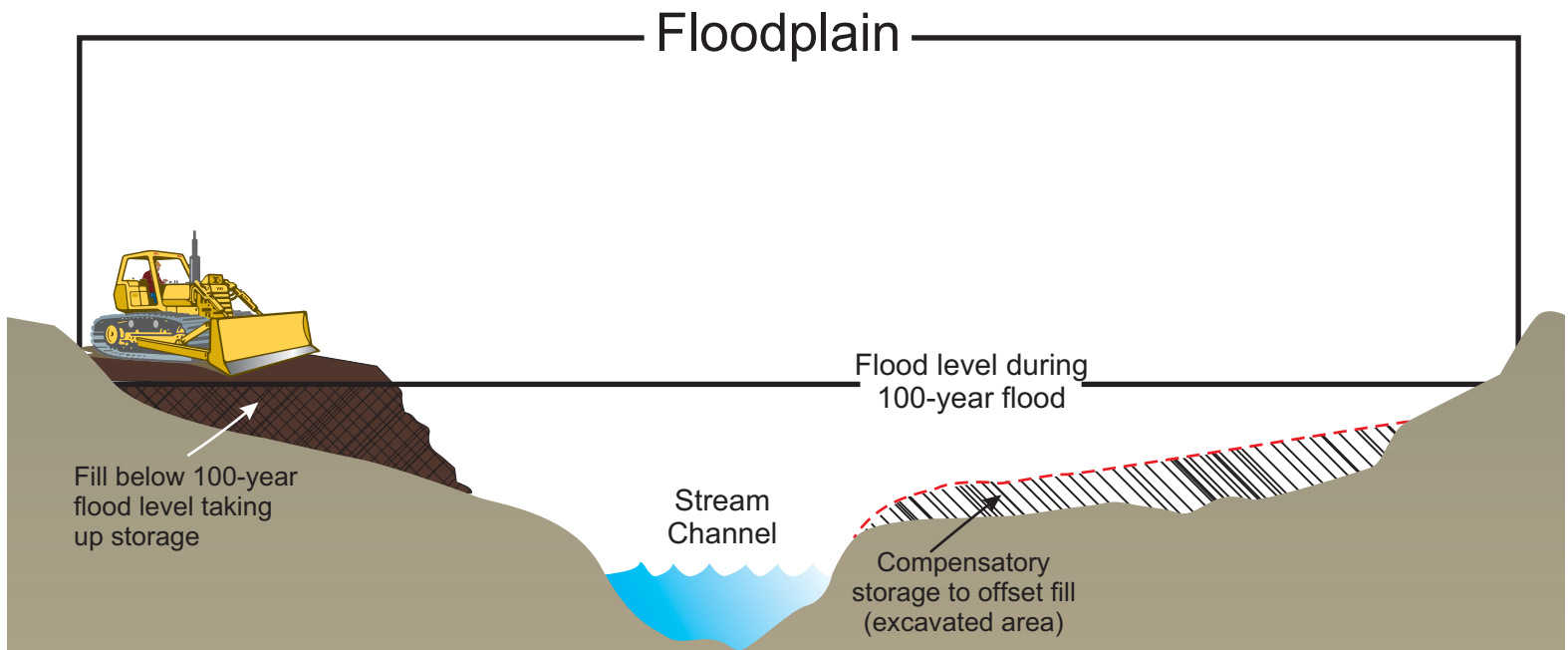
NO ADVERSE IMPACT

This is an overriding policy concept adopted for New Growth Areas by amendment to the Comprehensive Plan. No Adverse Impact means simply that the action of one property owner does not adversely impact the flooding risk for other properties. This concept is being implemented for New Growth Areas through ordinances and design standards, the major points of which are described in this brochure.



COMPENSATORY STORAGE

Another major function of the floodplain is to store flood water that floods outside of the stream banks and is temporarily slowed down in the floodplain outside of the creek. One way to think about storage vs. conveyance of flood water is to relate it to traffic at rush hour. If water in a floodplain from a big storm were a bunch of cars heading in the same direction on a freeway at rush hour, the water being conveyed would be the cars still moving on the freeway in the faster inner lanes, and the water being stored would be the cars in the slower outer lanes.



Another analogy is helpful when you think about what happens when development impacts the floodplain's ability to store flood water. Imagine that the floodplain during a large storm is like a bathtub filled to the brim with water. If you put a big brick in the tub, it will displace the water, which will spill onto the floor. The same thing can happen with development in the floodplain. Fill or other structures in the floodplain displace flood water just like a brick displaces water in a tub, and the displaced water moves onto another property.

Compensatory Storage is a standard for New Growth Areas which preserves the ability of the floodplain to store water. Compensatory storage means that loss of flood storage due to buildings or fill dirt in the floodplain is compensated for by providing an equal volume of storage to replace what is lost. In other words, if you bring one bucket in you need to take one bucket out. Limited exceptions are allowed as described in the section on 'No Net Rise.'

BEST AVAILABLE INFORMATION

Previously, floodplains in Lincoln were regulated primarily based upon maps generated by the Federal Emergency Management Agency (FEMA) through the National Flood Insurance Program. The City's floodplain regulations didn't clearly address situations where improved flood mapping showed flood hazards along streams that didn't have a FEMA-mapped floodplain.

As 'watershed master plans' are completed by the City and Lower Platte South Natural Resources District (NRD) for drainage areas, or watersheds, more accurate floodplain information becomes available. Floodplains identified through these watershed master plans are called 'floodprone areas' to distinguish them from those shown on the official FEMA maps, however, both represent a "100-year floodplain." Over time, this information is incorporated into the FEMA maps, but there is typically considerable delay before this 'best available' flood hazard information is incorporated by the Federal government into the FEMA maps.

The flood standards for New Growth Areas incorporate the use of 'best available' flood hazard information by clearly applying standards to both the FEMA-mapped floodplains as well as to 'floodprone areas' identified through watershed master plans or other studies accepted by the City, to better protect future homes and businesses from flood hazards.

